PRELIMINARY AMENDMENT AND
REQUEST FOR INTERFERENCE
UNDER 37 C.F.R. § 1.607(a)
Continuation Application of
U.S. Appln. No. 09/199,539

IN THE CLAIMS

Add the following new Claims 33-55:

--33. A method comprising the steps of:

manufacturing a continuous glass float ribbon having a first major surface and an opposite major surface defined as a second major surface, the first major surface having tin diffused therein characteristic of forming the glass float ribbon on a molten tin bath, positioning a chemical vapor deposition coating apparatus over the surface of the float ribbon at a point in the manufacture of the float ribbon where the temperature range is from about 590° to 715°C (1100° to 1320°F);

directing titanium tetrachloride in a carrier gas stream through said chemical vapor deposition apparatus over a surface of the float ribbon and annealing the float ribbon to produce titanium dioxide in the crystalline phase as a photocatalytically-activated self-cleaning coating over the glass float ribbon.

34. The method of claim 33 wherein the directing of the metal oxide precursor is directly onto the surface of the float ribbon without any intervening coating layers.

35. A method comprising the steps of:

B1 Cont

manufacturing a continuous glass float ribbon having a first major surface and an opposite major surface defined as a second major surface, the first major surface having tin diffused therein characteristic of forming the glass float ribbon on a molten tin bath;

depositing a coating over at least one of the major surfaces by positioning a chemical vapor deposition coating apparatus over the surface of the float ribbon at a point in the manufacture of the float ribbon where the temperature range is from about 590° to 715°C (1100° to 1320°F), directing a precursor gas mixture comprising titanium tetrachloride and an organic oxygen containing compound, wherein the concentration of the titanium tetrachloride is in the range from about 0.1-5.0% by volume, through said chemical vapor deposition coating apparatus over a surface of the float ribbon and annealing-the float ribbon in air to produce titanium dioxide in the crystalline phase as a photocatalytically-activated self-cleaning coating over the glass float ribbon.

36. The method of claim 35 wherein the directing of the metal oxide precursor is directly onto the surface of the float ribbon without any intervening coating layers.

37. In a method for forming a glass float ribbon wherein the method includes the steps of melting glass batch materials in a furnace; delivering the molten glass onto a bath of molten tin; pulling the molten glass across the tin bath whereupon the glass is sized and

B1 Cont

controllably cooled to form a dimensionally stable glass float ribbon; removing the float ribbon from the tin bath; moving the float ribbon by conveying roller through a lehr to anneal the float ribbon; moving the float ribbon to a cutting station on conveying rollers where the ribbon is cut into glass sheets, the improvement comprising:

depositing by chemical vapor deposition a crystalline phase of a photocatalytically-activated self-cleaning titanium dioxide coating over a surface of said float ribbon as the float ribbon is formed.

38. The method of claim 37 the improvement further comprising: depositing a silica coating over a surface of said float ribbon and depositing said titanium dioxide coating over said silica coating.

39. The method of claim 38 wherein said titanium dioxide coating has a thickness up to 1300Å.

40. The method of claim 37, the improvement further comprising: depositing a silica layer over a surface of said float ribbon and depositing said photocatalytically-activated self-cleaning coating over said silica layer wherein the thickness of the silica layer is about 339Å.

41. A method comprising the steps of:

providing a glass article having at least one surface by a float manufacturing process;

depositing a photocatalytically-activated self-cleaning coating over the surface of the article by chemical vapor deposition during the glass manufacturing process so that the coating has titanium dioxide in the crystalline phase and has a thickness up to 1300Å.

42. A method comprising the steps of:

providing an article of manufacture having at least one surface;

depositing a silica layer by chemical vapor deposition having a thickness of about 339Å over said surface; and

depositing a photocatalytically-activated self-cleaning coating by chemical vapor deposition over said silica layer whereupon said silica layer inhibits migration of sodium ions from the surface of said article to said photocatalytically-activated self-cleaning coating.

43. The method of claim 42 further comprising the step of annealing said photocatalytically-activated self-cleaning coating to increase a photocatalytic reaction rate of said photocatalytically-activated self-cleaning coating.

44. The method of claim 42 wherein the article is selected from the group consisting of: glass sheet and continuous glass float ribbon.

45. The method of claim 42 wherein the chemical vapor deposition process has a minimum temperature of the article to provide sufficient decomposition of the titanium precursor.

46. The method of claim 42 wherein the photocatalytically-activated self-cleaning coating has a thickness up to 1300Å to permit a sufficient portion of the coating to remain free of sodium ion poisoning and retain its activity.

47. A method comprising the steps of:

manufacturing a continuous glass float ribbon having a first major surface and an opposite major surface defined as a second major surface, the first major surface having tin diffused therein characteristic of forming the glass float ribbon on a molten tin bath, positioning a chemical vapor deposition coating apparatus over the surface of the float ribbon at a point in the manufacture of the float ribbon where the temperature range is from about 590° to 715°C (1100° to 1320°F);

directing titanium tetrachloride in a carrier gas stream through said chemical vapor deposition apparatus over a surface of the float ribbon and annealing the float ribbon to produce titanium dioxide in the crystalline phase as a photocatalytically-activated self-cleaning coating over the glass float ribbon whereby said coating has a photocatalytically activated self-cleaning reaction rate of at least about $2x10^{-3}$ cm^{-1} min^{-1}.

48. The method of claim 47 wherein the directing of the metal oxide precursor is directly onto the surface of the float ribbon without any intervening coating layers.

49. A method comprising the steps of:

manufacturing a continuous glass float ribbon having a first major surface and an opposite major surface defined as a second major surface, the first major surface having tin diffused therein characteristic of forming the glass float ribbon on a molten tin bath;

depositing a coating over at least one of the major surfaces by positioning a chemical vapor deposition coating apparatus over the surface of the float ribbon at a point in the manufacture of the float ribbon where the temperature range is from about 590° to 715°C (1100° to 1320°F), directing a precursor gas mixture comprising titanium tetrachloride and an organic oxygen containing compound, wherein the concentration of the titanium tetrachloride is in the range from about 0.1-5.0% by volume, through said chemical vapor deposition coating apparatus

over a surface of the float ribbon and annealing the float ribbon in air to produce titanium dioxide in the crystalline phase as a photocatalytically-activated self-cleaning coating over the glass float ribbon whereby said coating has a photocatalytically-activated self-cleaning reaction rate of at least about $2x10^{-3}$ cm^{-1} min^{-1}.

50. The method of claim 49 wherein the directing of the metal oxide precursor is directly onto the surface of the float ribbon without any intervening coating layers.

51. In a method for forming a glass float ribbon wherein the method includes the steps of melting glass batch materials in a furnace; delivering the molten glass onto a bath of molten tin; pulling the molten glass across the tin bath whereupon the glass is sized and controllably cooled to form a dimensionally stable glass float ribbon; removing the float ribbon from the tin bath; moving the float ribbon by conveying roller through a lehr to anneal the float ribbon; moving the float ribbon to a cutting station on conveying rollers where the ribbon is cut into glass sheets, the improvement comprising:

depositing by chemical vapor deposition a crystalline phase of a photocatalytically-activated self-cleaning titanium dioxide coating over a surface of said float ribbon as the float ribbon is formed whereby said coating has a photocatalytically-activated self-cleaning reaction rate of at least about $2x10^{-3}$ cm^{-1} min^{-1}.

B1 cont

52. The method of claim 51 the improvement further comprising: depositing a silica coating over a surface of said float ribbon and depositing said titanium dioxide coating over said silica coating.

53. The method of claim 52 wherein said titanium dioxide coating has a thickness up to 1300Å.

54. The method of claim 51, the improvement further comprising: depositing a silica layer over a surface of said float ribbon and depositing said photocatalytically-activated self-cleaning coating over said silica layer wherein the thickness of the silica layer is about 339Å.

55. A method comprising the steps of:

providing a glass article having at least one surface by a float manufacturing process;

depositing a photocatalytically-activated self-cleaning coating over the surface of the article by chemical vapor deposition during the glass manufacturing process so that the coating has titanium dioxide in the crystalline phase and has a thickness up to 1300Å whereby said coating has a photocatalytically-activated self-cleaning reaction rate of at least about $2x10^{-3}$ cm^{-1} min^{-1}.--